

## CLAIMS

- 1 1. A current acquisition coil according to the Rogowski principle with printed conductors  
2 (22, 23, 24, 25), whose configuration yields a coil winding (20, 21), and whose printed  
3 conductor ends are connected with each other by through platings (26, 27, 28, 29) on  
4 the printed circuit board (1, 10), characterized in that the current acquisition coil is  
5 open on at least one side, thereby generating a gap (7) that can be opened and then  
6 closed again.
- 1 2. A current acquisition coil according to claim 1, characterized in that the structure of  
2 the coil consists of two annular printed circuit board segments (1, 10), which are each  
3 connected with each other on one side by a hinge (6).
- 1 3. A current acquisition coil according to claim 1 or 2, characterized in that the printed  
2 conductor ends (13) of the coil winding on the first printed circuit board segment (1)  
3 are connected by means of flexible conductors (12) with the printed conductor ends  
4 (13) of the coil winding on the second printed circuit board segment (10).
- 1 4. A current acquisition coil according to claim 1, characterized in that the structure of  
2 the coil consists of a single-piece, slit and twistable printed circuit board segment (1).
- 1 5. A current acquisition coil according to one of the preceding claims, characterized in  
2 that the printed circuit board (1, or 1 and 10) of the current acquisition coil is built  
3 around several layers.

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1 6. A current acquisition coil according to claim 5, characterized in that two layers are  
2 provided for the printed conductors of the incoming winding (22, 22a, 23, 23a), and  
3 two additional layers are provided for the printed conductors of the returning winding  
4 (24, 24a, 25, 25a).

1 7. A current acquisition coil according to one of the preceding claims, characterized in  
2 that the components for an electronic circuit (19) are arranged on the printed circuit  
3 board (1).

1 8. A current acquisition coil according to the Rogowski principle with printed conductors  
2 (22, 23, 24, 25), whose arrangement yields a coil winding (20, 21), and whose printed  
3 conductor ends are connected with each other by through platings (26, 27, 28, 29) on  
4 the printed circuit board (1, 10), characterized in that the printed circuit board for the  
5 conductor to be measured accommodates electrical terminals (56), which are  
6 connected with each other via printed conductors (52, 54) and at least one through  
7 plating (53) in an axial direction in the center of the coil.

1 9. A current acquisition coil according to claim 8, characterized in that the printed circuit  
2 board (1, or 1 and 10) of the current acquisition coil is built around several layers.

1 10. A current acquisition coil according to claim 9, characterized in that two layers are  
2 provided for the printed conductors of the incoming winding (22, 22a, 23, 23a), and  
3 two additional layers are provided for the printed conductors of the returning winding  
4 (24, 24a, 25, 25a).

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- 1 11. A current acquisition coil according to one of the claims 8 to 10, characterized in that
- 2 the components for an electronic circuit (19) are arranged on the printed circuit board
- 3 (1).

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